

ABSTRACT

The aqueous-based cross-linkable binder composition comprising

(A) an aqueous dispersion of an aldehyde-functional polyurethane having a
5 number average molecular weight of more than 1,000 and an average aldehyde
functionality of ≥ 2 , which polyurethane comprises ionic and/or non-ionic dispersing
groups, and

(B) a low-molecular weight aldehyde-reactive cross-linker selected from the
group of low-molecular weight polyamines and low-molecular weight compounds
10 comprising at least one group of one of the formulae $E^1-CHR^1-E^2$ and $H-C-(E^1E^2E^3)$,
wherein $-E^1$, $-E^2$ and $-E^3$ are independently chosen from electron-withdrawing
groups such as $-P(=O)-O-$, $-CO-$, $-CN$, $-SO_2-$, $-NO_2$ and wherein R^1 has the
meaning of hydrogen or a hydrocarbon radical having 1 to 10 carbon atoms.

Preference is given to a coating composition wherein the ionic dispersing group is
15 an anionic dispersing group selected from the group of carboxylate, sulphonate
and/or phosph(on)ate salt groups, and/or wherein for the nonionic dispersing group
use is made of a C_1-C_4 alkoxy poly C_2-C_3 alkylene-oxide group in an amount
between 2.5 and 20 wt.%, based on the polyurethane.